

Appl. No. 10/080,070
Att'l. Dated January 7, 2004
Reply to Office action of October 10, 2003

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A discharge lamp comprising:
an envelope;
a discharge-sustaining fill sealed inside the envelope;
first and second electrodes for providing a discharge, at least the first electrode
5 including a current carrying wire and a coil including:
a first coiled structure formed by winding a overwind wire around a
first cylindrical member,
a second coiled structure formed by winding the first coiled structure
around a second cylindrical member without appreciable overlapping of the
10 coils, the second coiled structure having at least 80 turns per inch,
a third coiled structure formed by winding the second coiled structure
around a third cylindrical member, the third cylindrical member having a
diameter of at least 1.2 mm, and
an emitter material deposited on the coil, the amount of emitter material being at least
15 9-16 mg per 11.5 mm length of the coil.
2. (Cancelled).
3. (Currently Amended) The discharge lamp of claim [[2]] 1, wherein the third cylindrical member has a diameter of at least 1.2-1.5mm.
4. (Cancelled).
5. (Currently Amended) The discharge lamp of claim [[4]] 1, wherein the second coiled structure has at least 85 turns per inch.
6. (Original) The discharge lamp of claim 1, wherein the third coiled structure is at least 10mm in length.
7. (Original) The discharge lamp of claim 6, wherein the third coiled structure is 11-12 mm in length and the lamp is a T8 lamp.
8. (Original) The discharge lamp of claim 1, wherein the emitter material comprises an oxide selected from the group consisting of barium, strontium, calcium,

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zirconium, and combinations thereof.

9-11. (Cancelled).

12. (Previously Amended) The discharge lamp of claim 1, wherein the second coiled structure has at least 90 turns per inch.

13. (Previously Amended) The discharge lamp of claim 1, wherein the secondary coil is about 30 mm in length.

14. (Previously Amended) A discharge lamp comprising:
an envelope;
a discharge-sustaining fill sealed inside the envelope;
first and second electrodes for providing a discharge, at least the first electrode
5 including a current carrying wire and a coil including:
a first coiled structure formed by winding a overwind wire around a
first cylindrical member,
a second coiled structure formed by winding the first coiled structure
around a second cylindrical member, the second coiled structure having at
10 least 80 turns per inch,
a third coiled structure formed by winding the second coiled structure
around a third cylindrical member, and
an emitter material deposited on the coil, the amount of emitter material being 10-
15mg/30 mm length of secondary coil.

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15. (Currently Amended) A method for forming a coil for a fluorescent lamp, the
method comprising:
winding a wire around a first cylindrical member and a current carrying wire to form a
first coiled structure;
5 winding the first coiled structure around a second cylindrical member, without
appreciable overlapping of coils, to form a second coiled structure having 80-130 turns per
inch; and
winding the second coiled structure around a third cylindrical member to form a third
coiled structure, the third structure having a diameter of at least 1 mm; and
10 coating the third coiled structure with an emitter mix which, when activated, emits
electrons when heated, the amount of emitter material being 10-15mg/30 mm length of
secondary coil.

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16. (Original) The method of claim 15, wherein the emitter mix includes carbonates selected from the group consisting of barium carbonate, calcium carbonate, strontium carbonate, and combinations thereof.

17. (Original) The method of claim 15, wherein the step of winding the first coiled structure around the second cylindrical member to form a second coiled structure includes winding the first coiled structure at a spacing which provides at least 80 turns per inch.

18. (Original) The method of claim 15, further including dissolving the first, second and third cylindrical members in an acid bath.

19. (Previously Amended) The method of claim 15, wherein the third cylindrical member has a diameter of at least 1mm.

20. (Original) The method of claim 19, wherein the third cylindrical member has a diameter of 1.2-1.5mm.

21. (Original) The method of claim 15, wherein the second coiled structure has about 90 turns per inch.

22. (Original) The method of claim 15, wherein the third coiled structure is about 11.5 mm in length.

23. (Previously Amended) The method of claim 22, wherein the step of coating the third coiled structure with an emitter mix includes coating the third coiled structure with a mixture which includes at least 9 milligrams of one or more carbonates per 30 mm of secondary coil.

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